Date: 28.09.2021

To,

The Executive Engineer,
Yelahanka Division,
Bruhat Bengaluru Mahanagara Palike (BBMP),
Bangalore – 560064

FREQUENCY AND QUALITY REPORT

Sub: Regarding Quality Report for the below mentioned work.

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Sl. NO.	Description of Work	Unit	Quantity	No of samples tested	Standards
1	Providing and laying plain/reinforced cement concrete for side drains walls & bottom thickness 15cm using M20 nominal mix concrete	Cum	1189.71	24	Per 50 Cum
2	Providing TMT Bars Fe 500 steel reinforcement for RCC	MT	83.32	3	Per Dia of steel
3	Construction of granular sub-base Grading-V as Sub-base and drainage layer	Cum	936.61	2	Per 400 Cum
4	Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam	Cum	1404.91	1	Per 1000 Cum
5	Providing and laying dense graded bituminous macadam	Cum	312.07	16	Two Tests per day
6	Providing and laying bituminous concrete 40mm thick	Cum	685.64	16	Two Tests per day

With respect to the above subject & name of the work, we have inspected the work and the Quantity and Quality of above mentioned items of the work was found to be completed satisfactorily for the 1st & Final bill.

Nandi Consultants

Date: 11.09.2021

TEST REPORT ON PHYSICAL PROPERTIES OF CEMENT

Name of Client: Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Date of Receipt: 11-08-2021

Location: 8th Cross LHS, Judicial Layout

Sampling : Sample Received from the site and Tested

Sample Identification*: Penna OPC 43 grade

Reference to BIS codes: **Test Method:**

IS 4031(Part 1):1996(RA 2016) Determination Of Fineness By Dry Sieving

IS 4031(Part 3):1988 (RA 2019) Determination Of Soundness

IS 4031 (Part 4):1988 (RA 2019) Determination Of Consistency Of Standard Cement Paste

IS 4031 (Part 5):1988 (RA 2019) Determination Of Initial & Final Setting Time

IS 4031 (Part 6):1988 (RA 2019) Determination Of Compressive Strength

IS 4031 (Part 11):1988 (RA 2019) Determination Of Density

Specification :

IS 269 : 2015 Ordinary Portland Cement

Condition of sample: Satisfactory

Date of test: 13.08.2021-08.09.2021

Sl.No	Physical properties	Results	Units	Requirement as per IS 269: 2015		
				33 Grade	43 Grade	53 Grade
1	Standard Consistency	30	%	Not specified	Not specified	Not specified
2	Initial Setting time	195	minutes	Min 30 minutes	Min 30 minutes	Min 30 minutes
3	Final Setting time	422	minutes	Max 600 minutes	Max 600 minutes	Max 600 minutes
4	Fineness by dry sieving	9.1	%	–	–	–
6	Soundness (Le Chatelier's Method)	3	mm	Max 10 mm	Max 10 mm	Max 10 mm
7	Density	3.17	g/cm^3	–	–	–

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ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-10

Kamala Nivasa, 9880770762, 9980160007
1st main, 2nd Cross, Krushinagar, Shimoga 577204, Karnataka.

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Sl.No	Physical properties	Results	Units	Requirement as per IS 269: 2015		
				33 Grade	43 Grade	53 Grade
8	Compressive Strength					
	3 Days	25.7	N/mm^2	Min 16 N/mm^2	Min 23 N/mm^2	Min 27 N/mm^2
	7 Days	35.4	N/mm^2	Min 22 N/mm^2	Min 33 N/mm^2	Min 37 N/mm^2
	28 Days	46.0	N/mm^2	Min 33 N/mm^2, Max 48 N/mm^2	Min 43 N/mm^2, Max 58 N/mm^2	Min 53 N/mm^2

Remarks:

The tested sample is found to be satisfactory as it meets IS 269 : 2015 Specification standards

1. The test results pertain to the number of sample Received and Tested
2. Any correction in the report will make this report invalid.
3. This report without prior written approval should not be reproduced or published in full or part.
4. Samples will be disposed after 90 days from the date of issue of test certificate.

Prepared By: Adv **Tested By:** Kum

ಸಹಾಯಕ ಆಯುಕ್ತರ ಕಛೇರಿಯಿಂದ ದೃಢೀಕರಿಸಿದ ಪ್ರಮಾಣ ಪತ್ರವಾಗಿದೆ. ಬೆಂಗಳೂರು-100

Kamala Nivasa, 9880770762, 9980160007
1st main, 2nd Cross, Krushinagar, Shimoga 577204, Karnataka.

Date: 16.08.2021

TEST REPORT ON MECHANICAL PROPERTIES OF REINFORCEMENT STEEL

Name of Client: Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Date of Receipt: 11.08.2021

Location: 8th Cross LHS, Judicial Layout

Sampling : Sample Received from the site and Tested

Reference to BIS code Test Method:

IS 1608 (Part 1) : 2018, Metallic Materials, Tensile Testing, Method of Test at Room Temperature

IS 1786 : 2008 (RA 2018) High strength deformed steel bars and wires for concrete reinforcement - Bend & Rebend Test

Specification:

IS 1786 : 2008 (RA 2018) High strength deformed steel bars and wires for concrete reinforcement

Condition of sample: Satisfactory

Date of test: 13.08.2021 to 14.08.2021

Sl. No	Sample Identification	Sample ID No	Nominal size (dia in mm)	Mass per meter (kg/meter)	TENSILE STRENGTH				Bend Test	Re Bend Test
					0.20 % proof stress/ yield stress (N/mm^2)	Tensile strength (N/mm^2)	TS/YS ratio	Elongation percent on gauge length		
1	RD TMT Fe 550	1/1a	08	0.382	575	627	1.09	26.0	–	–
	RD TMT Fe 550	1/1b	08	0.376	–	–	–	–	No Rupture or Crack Visible	–
	RD TMT Fe 550	1/1c	08	0.379	–	–	–	–	–	No Rupture or Crack Visible

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Sl. No	Sample Identification	Sample ID No	Nominal size (dia in mm)	Mass per meter (kg/meter)	TENSILE STRENGTH				Bend Test	Re Bend Test
					0.20 % proof stress/ yield stress (N/mm^2)	Tensile strength (N/mm^2)	TS/YS ratio	Elongation percent on gauge length		
2	RD TMT Fe 550	2/1a	10	0.579	625	688	1.10	24.0	–	–
	RD TMT Fe 550	2/1b	10	0.581	–	–	–	–	No Rupture or Crack Visible	–
	RD TMT Fe 550	2/1c	10	0.576	–	–	–	–	–	No Rupture or Crack Visible

Sl. No	Sample Identification	Sample ID No	Nominal size (dia in mm)	Mass per meter (kg/meter)	TENSILE STRENGTH				Bend Test	Re Bend Test
					0.20 % proof stress/ yield stress (N/mm^2)	Tensile strength (N/mm^2)	TS/YS ratio	Elongation percent on gauge length		
3	RD TMT Fe 550	3/1a	12	0.885	585	635	1.08	25	–	–
	RD TMT Fe 550	3/1b	12	0.887	–	–	–	–	No Rupture or Crack Visible	–
	RD TMT Fe 550	3/1c	12	0.886	–	–	–	–	–	No Rupture or Crack Visible

Remarks:

The tested sample is found to be satisfactory as it meets the requirements of the IS 1786 : 2008 Specification/Project Requirement.

1. The test results pertain to the number of samples Received from the site and Tested
2. Any correction in the report will make this report invalid.
3. This report without prior written approval should not be reproduced or published in full or part.
4. Samples will be disposed after 90 days from the date of issue of test certificate.

Prepared By:

Tested By:

Kamala Nivasa,
1st main, 2nd Cross, Krushinagar, Shimoga 577204, Karnataka.
9880770762, 9980160007

Date: 18.08.2021

TEST REPORT ON MECHANICAL PROPERTIES OF COARSE AGGREGATES

Name of Client: Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Location: 8th Cross LHS, Judicial Layout

Sample Identification: 20mm down size Coarse Aggregate

Sampling : Sample Received from the site and Tested

Reference to BIS codes: **Test Method:**

IS 2386 (Part 1) : 1963 (RA 2016) Particle Size And Shape Cl.2

IS 2386 (Part 3) : 1963 (RA 2016) Specific gravity, density, voids, absorption and bulking

IS 2386 (Part 4) : 1963 (RA 2016) Mechanical Properties

Specification:

IS 383 : 2016 Coarse And Fine Aggregate For Concrete

Condition of sample: Satisfactory

Date of test: 11.08.2021 to 16.08.2021

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 20MM COARSE AGGREGATE:

Total weight taken: 5000 grams

Sl.No	Sieve Designation	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Requirement as per IS 383: 2016 Table-7 (Cl 6.1 & 6.2)	
						Graded	Single-Sized
1	40 mm	0	0	0	100	100	100
2	20 mm	456	456	9.12	90.88	90-100	85-100
3	10 mm	3250	3706	74.12	25.88	25-55	0-20
4	4.75 mm	954	4660	93.2	6.8	0-10	0-5
5	Pan	340	5000	100	0	—	—

Kamala Nivasa,
1st main, 2nd Cross, Krushinagar, Shimoga 577204, Karnataka.
9880770762, 9980160007

Nandi Consultants

Date: 18.08.2021

TEST REPORT ON PHYSICAL PROPERTIES OF FINE AGGREGATE

Name of Client: Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Date of Receipt: 11-08-2021

Location: 8th Cross LHS, Judicial Layout

Sampling : Sample Received from the site and Tested

Sample Identification*: M-Sand

Reference to BIS code: **Test Method:**

IS 2386 (Part 1) : 1963 (RA 2016) Particle Size And Shape Cl.2

IS 2386 (Part 3) : 1963 (RA 2016) Specific gravity, density, voids, absorption and bulking

IS 2386 (Part 4) :1963 (RA 2016) Mechanical Properties

Specification:

IS 383 : 2016 Coarse and fine aggregate for concrete

Condition of sample: Satisfactory

Date of test: 11.08.2021 to 16.08.2021

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF FINE AGGREGATE:

Total weight taken: 1000 grams

SL.No	Sieve Designation	Weight Retained (gms)	Cumulative Weight Retained (gms)	% Cumulative Weight Retained	% Passing	Requirement as per IS 383 : 2016 Table-9, (Cl-6.3)				Remarks
						Grading Zone I	Grading Zone II	Grading Zone III	Grading Zone IV	
1	10 mm	0	0	0	100	100	100	100	100	The tested Sample confirms to Grading Zone- II
2	4.75 mm	15	15	1.5	98.5	90-100	90-100	90-100	95-100	
3	2.36 mm	175	190	19	81	60-95	75-100	85-100	95-100	
4	1.18 mm	256	446	44.6	55.4	30-70	55-90	75-100	90-100	
5	600 micron	202	648	64.8	35.2	15-34	35-59	60-79	80-100	
6	300 micron	256	904	90.4	9.6	5-20	8-30	12-40	15-50	
7	150 micron	68	972	97.2	2.8	0-10	0-10	0-10	0-15	
8	Pan	28	1000	100	0	---	---	---	---	

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Kamala Nivasa, 9880770762, 9980160007
1st main, 2nd Cross, Krushinagar, Shimoga 577204, Karnataka.

PHYSICAL PROPERTIES

Sl.No	Tests	Result	Requirements as per IS 383 : 2016 Table-3, (Cl-5.7)
1	Specific Gravity	2.62	2.1 to 3.2
2	Material Finer than 75μ (%)	9.8	–
3	Fineness Modulus	2.76	–
4	Water Absorption (%)	1.85	5% Max

Remarks:

The tested sample is found to be satisfactory as it meets the requirements of the IS 383 : 2016 Specification/Project Requirement.

1. The test results pertain to the number of Sample Received from the site and Tested
2. Any correction in the report will make this report invalid.
3. This report without prior written approval should not be reproduced or published in full or part.
4. Samples will be disposed after 90 days from the date of issue of test certificate.

Prepared By: **Tested By:** **Project Manager**

M/S. NANDI CONSULTANTS * SHIMOGA *

ಶಾಲಾಯಿಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯುಬಿಡಿಪಿ ಉಪವಿಭಾಗ ಸಾಗರ
ಪಿ.ಡಬ್ಲ್ಯು.ಡಿ. ಬೆಂಗಳೂರು-10

Kamala Nivasa,
1st main, 2nd Cross, Krushinagar, Shimoga 577204, Karnataka.
9880770762, 9980160007

Nandi Consultants

Date : 25.09.2021

TEST REPORT ON CEMENT CONCRETE CUBES

Name of Client: Executive Engineer Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name of Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Sample Identification*: C C Cube / 150mmx150mmx150mm / M - 20 / 28 days Compressive Strength

Reference to BIS codes: **Test Method:**

IS 516 : 1959 (RA 2018) Methods Of Tests For Strength Of Concrete Cl.5

Specification:

IS 456 : 2000 (RA 2016) Plain And Reinforced Concrete - Code Of Practice

Condition of sample: Satisfactory

Compressive strength : Min 20 N/mm2 as per IS 456 : 2000 (RA 2016) Plain And Reinforced Concrete - Code Of Practice

Sl. No	Sample Identification mark on CC Cubes	Location	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of cube (grams)	Failure Load (kN)	Compressive strength (N/mm^2)	Average Compressive strength of 3 Cubes (N/mm^2)
1	1/1	8th Cross Road LHS Judicial Layout	M-20	18-Aug-21	15-Sep-21	150*150 *150	22500	8642	495	22.00	21.8
	1/2	8th Cross Road LHS Judicial Layout	M-20	18-Aug-21	15-Sep-21	150*150 *150	22500	8495	490	21.78	
	1/3	8th Cross Road LHS Judicial Layout	M-20	18-Aug-21	15-Sep-21	150*150 *150	22500	8435	487	21.65	
2	1/1	8th Cross Road RHS Judicial Layout	M-20	18-Aug-21	15-Sep-21	150*150 *150	22500	8492	485	21.56	21.4
	1/2	8th Cross Road RHS Judicial Layout	M-20	18-Aug-21	15-Sep-21	150*150 *150	22500	8595	476	21.16	
	1/3	8th Cross Road RHS Judicial Layout	M-20	18-Aug-21	15-Sep-21	150*150 *150	22500	8435	483	21.47	
3	1/1	10th Main Road LHS Judicial Layout	M-20	18-Aug-21	15-Sep-21	150*150 *150	22500	8402	481	21.38	21.5
	1/2	10th Main Road LHS Judicial Layout	M-20	18-Aug-21	15-Sep-21	150*150 *150	22500	8456	489	21.74	
	1/3	10th Main Road LHS Judicial Layout	M-20	18-Aug-21	15-Sep-21	150*150 *150	22500	8456	479	21.29	

Nandi Nivasa,
1st main, 2nd Cross, Krushinagar, Shimoga 577204, Karnataka.
9880770762, 9980160007

Sl. No	Sample Identification mark on CC Cubes	Location	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of cube (grams)	Failure Load (kN)	Compressive strength (N/mm^2)	Average Compressive strength of 3 Cubes (N/mm^2)
4	1/1	10th Main Road RHS Judicial Layout	M-20	19-Aug-21	16-Sep-21	150*150 *150	22500	8567	479	21.29	21.6
	1/2	10th Main Road RHS Judicial Layout	M-20	19-Aug-21	16-Sep-21	150*150 *150	22500	8516	481	21.38	
	1/3	10th Main Road RHS Judicial Layout	M-20	19-Aug-21	16-Sep-21	150*150 *150	22500	8592	496	22.05	
5	1/1	Aditya Homes Opposite Road LHS Judicial Layout	M-20	19-Aug-21	16-Sep-21	150*150 *150	22500	8568	485	21.56	21.8
	1/2	Aditya Homes Opposite Road LHS Judicial Layout	M-20	19-Aug-21	16-Sep-21	150*150 *150	22500	8435	496	22.05	
	1/3	Aditya Homes Opposite Road LHS Judicial Layout	M-20	19-Aug-21	16-Sep-21	150*150 *150	22500	8489	492	21.87	
6	1/1	Aditya Homes Opposite Road RHS Judicial Layout	M-20	19-Aug-21	16-Sep-21	150*150 *150	22500	8432	487	21.65	21.7
	1/2	Aditya Homes Opposite Road RHS Judicial Layout	M-20	19-Aug-21	16-Sep-21	150*150 *150	22500	8550	495	22.00	
	1/3	Aditya Homes Opposite Road RHS Judicial Layout	M-20	19-Aug-21	16-Sep-21	150*150 *150	22500	8592	485	21.56	
7	1/1	11th Main Road LHS Judicial Layout	M-20	20-Aug-21	17-Sep-21	150*150 *150	22500	8489	485	21.56	20.8
	1/2	11th Main Road LHS Judicial Layout	M-20	20-Aug-21	17-Sep-21	150*150 *150	22500	8536	455	20.23	
	1/3	11th Main Road LHS Judicial Layout	M-20	20-Aug-21	17-Sep-21	150*150 *150	22500	8562	465	20.67	
8	1/1	11th Main Road RHS Judicial Layout	M-20	20-Aug-21	17-Sep-21	150*150 *150	22500	8462	455	20.23	20.7
	1/2	11th Main Road RHS Judicial Layout	M-20	20-Aug-21	17-Sep-21	150*150 *150	22500	8562	465	20.67	
	1/3	11th Main Road RHS Judicial Layout	M-20	20-Aug-21	17-Sep-21	150*150 *150	22500	8532	480	21.34	
	1/1	12th Cross LHS Judicial Layout	M-20	20-Aug-21	17-Sep-21	150*150 *150	22500	8432	455	20.23	

Kamala Nivasa,
1st main, 2nd Cross, Krushinagar, Shimoga 577204, Karnataka.
9880770762, 9980160007
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Sl. No	Sample Identification mark on CC Cubes	Location	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of cube (grams)	Failure Load (kN)	Compressive strength (N/mm^2)	Average Compressive strength of 3 Cubes (N/mm^2)
9	1/2	17th Cross LHS Judicial Layout	M-20	20-Aug-21	17-Sep-21	150*150 *150	22500	8521	460	20.45	20.6
	1/3	17th Cross LHS Judicial Layout	M-20	20-Aug-21	17-Sep-21	150*150 *150	22500	8591	475	21.12	
10	1/1	17th Cross RHS Judicial Layout	M-20	21-Aug-21	18-Sep-21	150*150 *150	22500	8560	470	20.89	21.2
	1/2	17th Cross RHS Judicial Layout	M-20	21-Aug-21	18-Sep-21	150*150 *150	22500	8531	465	20.67	
	1/3	17th Cross RHS Judicial Layout	M-20	21-Aug-21	18-Sep-21	150*150 *150	22500	8497	495	22.00	
11	1/1	3rd Cross Road LHS Hanumappa Layout	M-20	21-Aug-21	18-Sep-21	150*150 *150	22500	8410	460	20.45	21.0
	1/2	3rd Cross Road LHS Hanumappa Layout	M-20	21-Aug-21	18-Sep-21	150*150 *150	22500	8492	485	21.56	
	1/3	3rd Cross Road LHS Hanumappa Layout	M-20	21-Aug-21	18-Sep-21	150*150 *150	22500	8499	475	21.12	
12	1/1	7th B Cross LHS B Sector	M-20	21-Aug-21	18-Sep-21	150*150 *150	22500	8441	465	20.67	21.1
	1/2	7th B Cross LHS B Sector	M-20	21-Aug-21	18-Sep-21	150*150 *150	22500	8432	475	21.12	
	1/3	7th B Cross LHS B Sector	M-20	21-Aug-21	18-Sep-21	150*150 *150	22500	8499	485	21.56	
13	1/1	7th B Cross RHS B Sector	M-20	22-Aug-21	19-Sep-21	150*150 *150	22500	8473	483	21.47	21.7
	1/2	7th B Cross RHS B Sector	M-20	22-Aug-21	19-Sep-21	150*150 *150	22500	8465	485	21.56	
	1/3	7th B Cross RHS B Sector	M-20	22-Aug-21	19-Sep-21	150*150 *150	22500	8475	495	22.00	
14	1/1	8th B Main LHS B Sector	M-20	22-Aug-21	19-Sep-21	150*150 *150	22500	8432	465	20.67	21.0
	1/2	8th B Main LHS B Sector	M-20	22-Aug-21	19-Sep-21	150*150 *150	22500	8591	465	20.67	
	1/3	8th B Main LHS B Sector	M-20	22-Aug-21	19-Sep-21	150*150 *150	22500	8495	485	21.56	

Kamala Nivasa,
1st main, 2nd Cross, Krushinagar, Shimoga 577204, Karnataka.
9880770762, 9980160007

Sl. No	Sample Identification mark on CC Cubes	Location	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of cube (grams)	Failure Load (kN)	Compressive strength (N/mm²)	Average Compressive strength of 3 Cubes (N/mm²)
15	1/1	8th B Main RHS B Sector	M-20	22-Aug-21	19-Sep-21	150*150 *150	22500	8465	475	21.12	20.8
	1/2	8th B Main RHS B Sector	M-20	22-Aug-21	19-Sep-21	150*150 *150	22500	8521	460	20.45	
	1/3	8th B Main RHS B Sector	M-20	22-Aug-21	19-Sep-21	150*150 *150	22500	8595	470	20.89	
16	1/1	E Cross Road LHS Mathru Layout	M-20	23-Aug-21	20-Sep-21	150*150 *150	22500	8465	485	21.56	21.1
	1/2	E Cross Road LHS Mathru Layout	M-20	23-Aug-21	20-Sep-21	150*150 *150	22500	8479	475	21.12	
	1/3	E Cross Road LHS Mathru Layout	M-20	23-Aug-21	20-Sep-21	150*150 *150	22500	8495	465	20.67	
17	1/1	E Cross Road RHS Mathru Layout	M-20	23-Aug-21	20-Sep-21	150*150 *150	22500	8509	485	21.56	22.2
	1/2	E Cross Road RHS Mathru Layout	M-20	23-Aug-21	20-Sep-21	150*150 *150	22500	8562	500	22.23	
	1/3	E Cross Road RHS Mathru Layout	M-20	23-Aug-21	20-Sep-21	150*150 *150	22500	8512	510	22.67	
18	1/1	D Cross Road LHS Mathru Layout	M-20	23-Aug-21	20-Sep-21	150*150 *150	22500	8489	490	21.78	21.8
	1/2	D Cross Road LHS Mathru Layout	M-20	23-Aug-21	20-Sep-21	150*150 *150	22500	8473	495	22.00	
	1/3	D Cross Road LHS Mathru Layout	M-20	23-Aug-21	20-Sep-21	150*150 *150	22500	8435	489	21.74	
19	1/1	D Cross Road RHS Mathru Layout	M-20	24-Aug-21	21-Sep-21	150*150 *150	22500	8502	479	21.29	21.6
	1/2	D Cross Road RHS Mathru Layout	M-20	24-Aug-21	21-Sep-21	150*150 *150	22500	8465	485	21.56	
	1/3	D Cross Road RHS Mathru Layout	M-20	24-Aug-21	21-Sep-21	150*150 *150	22500	8432	495	22.00	

Kamala Nivasa,
1st main, 2nd Cross, Krushinagar, Shimoga 577204, Karnataka.
9880770762, 9980160007

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Sl. No	Sample Identification mark on CC Cubes	Location	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of cube (grams)	Failure Load (kN)	Compressive strength (N/mm^2)	Average Compressive strength of 3 Cubes (N/mm^2)
20	1/1	5th Cross Road LHS Mathru Layout	M-20	24-Aug-21	21-Sep-21	150*150 *150	22500	8515	496	22.05	21.3
	1/2	5th Cross Road LHS Mathru Layout	M-20	24-Aug-21	21-Sep-21	150*150 *150	22500	8426	475	21.12	
	1/3	5th Cross Road LHS Mathru Layout	M-20	24-Aug-21	21-Sep-21	150*150 *150	22500	8495	465	20.67	
21	1/1	5th Cross Road RHS Mathru Layout	M-20	24-Aug-21	21-Sep-21	150*150 *150	22500	8489	495	22.00	22.1
	1/2	5th Cross Road RHS Mathru Layout	M-20	24-Aug-21	21-Sep-21	150*150 *150	22500	8562	489	21.74	
	1/3	5th Cross Road RHS Mathru Layout	M-20	24-Aug-21	21-Sep-21	150*150 *150	22500	8512	510	22.67	
22	1/1	4th Cross to 5th Cross Connection LHS Mathru Layout	M-20	25-Aug-21	22-Sep-21	150*150 *150	22500	8486	492	21.87	21.9
	1/2	4th Cross to 5th Cross Connection LHS Mathru Layout	M-20	25-Aug-21	22-Sep-21	150*150 *150	22500	8473	496	22.05	
	1/3	4th Cross to 5th Cross Connection LHS Mathru Layout	M-20	25-Aug-21	22-Sep-21	150*150 *150	22500	8435	489	21.74	
23	1/1	4th Cross to 5th Cross Connection RHS Mathru Layout	M-20	25-Aug-21	22-Sep-21	150*150 *150	22500	8497	479	21.29	21.7
	1/2	4th Cross to 5th Cross Connection RHS Mathru Layout	M-20	25-Aug-21	22-Sep-21	150*150 *150	22500	8465	497	22.09	
	1/3	4th Cross to 5th Cross Connection RHS Mathru Layout	M-20	25-Aug-21	22-Sep-21	150*150 *150	22500	8548	487	21.65	

Remarks:

The tested samples meets the requirements of IS 456 : 2000 with respect to above tests conducted.

1. The test results pertain to the number of samples as furnished by the customer
2. Any correction in the report will make this report invalid.
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4. Samples will be disposed after 30 days from the date of issue of test certificate

Prepared By:

Tested By:

Project Manager

M/S. NANDI CONSULTANTS * SHIMOGA *

Kamala Nivasa,
1st main, 2nd Cross, Krushinagar, Shimoga 577204, Karnataka.
9880770762, 9980160007

Nandi Consultants

Date : 03.09.2021

TEST REPORT OF GRADATION FOR GSB

Name of Client: Executive Engineer Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name of Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Date of Sample Collection: 01.09.201

Chainage/Location/Land Mark: 7th B Cross Road, B Sector

Date of testing: 01.09.201

Reference to BIS codes: IS 2386 (Part 1):1963 (RA 2016) Particle Size and Shape Cl.2

Layer: GSB

Oven Dry Wt (gm): 10000

Sl No	Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	As per MORTH 5th Revsion Table 400.1 (Garding V)
1	75	0	0	0.00	100.00	100
2	53	250	250	2.50	97.50	80-100
3	26.5	1856	2106	21.06	78.94	55-90
4	9.5	3565	5671	56.71	43.29	35-65
5	4.75	1056	6727	67.27	32.73	25-50
6	2.36	1356	8083	80.83	19.17	10-20
7	0.85	956	9039	90.39	9.61	2-10
8	0.425	802	9841	98.41	1.59	0-5
9	pan	159	10000	100.00	0.00	-

Remarks:

The tested sample is found to be satisfactory as it meets the requirements of the MORTH Specification/Project Requirement.

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Prepared By: Ade **Tested By:**

Kamala Nivasa,
1st main, 2nd Cross, Krushinagar, Shimoga 577204, Karnataka.
9880770762, 9980160007

Nandi Consultants

Nandi Consultants

Date : 09.09.2021

TEST REPORT OF GRADATION FOR WET MIX MACADAM

Name of Client: Executive Engineer Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name of Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Date of Sample Collection: 06.09.2021

Chainage/Location/ Mark: 17th Cross, Judicial Layout

Date of testing: 07.09.2021

BIS Code: IS 2386 (Part 1) 1963 (RA 2016) Particle Size and Shape Cl 2

Layer: WMM

Oven Dry Wt (gm): 10000

Sl No	Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits Vide Table 400.13 as Per MORTH Specification
1	53	0	0	0.00	100	100
2	45	125	125	1.25	98.75	95-100
3	22.4	2598	2723	27.23	72.77	60-80
4	11.2	2256	4979	49.79	50.21	40-60
5	4.75	1256	6235	62.35	37.65	25-40
6	2.36	856	7091	70.91	29.09	15-30
7	0.600	759	7850	78.50	21.50	8-22
8	0.075	1756	9606	96.06	3.94	0-5

Remarks:

The tested sample is found to be satisfactory as it meets the requirements of the MORTH Specification/Project Requirement.

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4. Samples will be disposed after 90 days from the date of issue of test certificate

Prepared By:

Tested By:

Kamala Nivasa,
1st main, 2nd Cross, Krushinagar, Shimoga 577204, Karnataka.
9880770762, 9980160007

Nandi Consultants

TEST REPORTS OF BITUMEN CONTENT & GRADATION DETERMINATION OF DENSE BITUMINOUS MACADAM

Name of Client:	Executive Engineer Bruhat Bangalore Mahanagara Palike
Address:	Yelahanka Division
Package No:	Package - 13
Name of Work:	Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)
Name Contractor:	M/s Nidhi Constructions
Name of PMC:	M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204
Date of Sample Collection:	08.09.2021
Chainage/Location /Land Mark:	3rd Cross Road Hanumappa Layout
Date of testing:	08.09.2021
Type of Mix:	Dense Bituminous Macadam

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Requirements
1. Weight of Mixture before Test, gm	500	As per MORTH Specification for DBM Grade II (50-75mm) Bitumen Content 4.5 min VG-30
2. Weight of Mixture after Test, gm	476	
3. Weight of Bitumen Extracted, gm	24	
4. Bitumen content in %	4.8	

GRADATION AFTER EXTRACTION

TOTAL WEIGHT OF SAMPLE: 476 gms

SIEVE SIZE in mm	Weight Retained in gm	% Retained	Cumulative % Retained	% Passing	Requirements as per MORTH Specification Table 500-10
37.5	0	0.00	0.00	100.00	100
26.5	43	9.03	9.03	90.97	90 - 100
19	86	18.07	27.10	72.90	71-95
13.2	74	15.55	42.65	57.35	56-80
4.75	78	16.39	59.03	40.97	38-54
2.36	66	13.87	72.90	27.10	28-42
0.3	72	15.13	88.03	11.97	7-21
0.075	26	5.46	93.49	6.51	2-8

Remarks:

The tested sample is found to be satisfactory as it meets the requirements of the MORTH Specification/Project Requirement.

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Contractor/Contractor Representative

PMC

Client(AE/AEE/EE)

TEST REPORTS OF BITUMEN CONTENT & GRADATION DETERMINATION OF DENSE BITUMINOUS MACADAM

Name of Client:	Bruhat Bangalore Mahanagara Palike
Address:	Yelahanka Division
Package No:	Package - 13
Name of Work:	Asphalting of Roads & Improvements to Foolpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)
Name Contractor:	M/s Nidhi Constructions
Name of PMC:	M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204
Date of Sample Collection:	10.09.2021
Chainage/Location /Land Mark:	8th Main Road Sharadha Nagara
Date of testing:	10.09.2021
Type of Mix:	Dense Bituminous Macadam

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Requirements
1. Weight of Mixture before Test, gm	500	As per MORTH Specification for DBM Grade II (50-75mm) Bitumen Content 4.5 min VG-30
2. Weight of Mixture after Test, gm	477	
3. Weight of Bitumen Extracted, gm	23	
4. Bitumen content in %	4.6	

GRADATION AFTER EXTRACTION

TOTAL WEIGHT OF SAMPLE: 477 gms

SIEVE SIZE in mm	Weight Retained in gm	% Retained	Cumulative % Retained	% Passing	Requirements as per MORTH Specification Table 500-10
37.5	0	0.00	0.00	100.00	100
26.5	22	4.61	4.61	95.39	90 - 100
19	95	19.92	24.53	75.47	71-95
13.2	74	15.51	40.04	59.96	56-80
4.75	84	17.61	57.65	42.35	38-54
2.36	51	10.69	68.34	31.66	28-42
0.3	79	16.56	84.91	15.09	7-21
0.075	35	7.34	92.24	7.76	2-8

Remarks:

The tested sample is found to be satisfactory as it meets the requirements of the MORTH Specification/Project Requirement.

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Contractor/Contractor Representative | **PMC** | **Client(AE/AEE/EE)**

Kamala Nivasa,
1st main, 2nd Cross, Krushinagar, Shimoga 577204, Karnataka.
9880770762, 9980160007

TEST REPORTS OF BITUMEN CONTENT & GRADATION DETERMINATION OF BITUMINOUS CONCRETE

Name of Client: Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Chainage/Location /Land Mark: 1st A Cross Someshwara Nagara

Date of testing: 14.09.2021

Type of Mix: Bituminous Concrete

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Requirements
1. Weight of Mixture before Test, gm	500	As per MORTH Specification for Grade II Vide Table 500.17 Binder Content 5.4% min
2. Weight of Mixture after Test, gm	472	
3. Weight of Binder Extracted, gm	28	
4. Binder content in %	5.6	

GRADATION AFTER EXTRACTION

TOTAL WEIGHT OF SAMPLE: 472 gms

SIEVE SIZE in mm	Weight Retained in gm	% Retained	Cumulative % Retained	% Passing	Requirements as per MORTH Specification Table 500.17
19	0	0.00	0.00	100.00	100
13.2	33	6.99	6.99	93.01	90 - 100
9.5	98	20.76	27.75	72.25	70-88
4.75	87	18.43	46.19	53.81	53-71
2.36	48	10.17	56.36	43.64	42-58
1.18	32	6.78	63.14	36.86	34-48
0.6	38	8.05	71.19	28.81	26-38
0.3	30	6.36	77.54	22.46	18-28
0.15	34	7.20	84.75	15.25	12-20
0.075	32	6.78	91.53	8.47	4-10

Remarks:

The tested sample is found to be satisfactory as it meets the requirements of the MORTH Specification/Project Requirement.

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Contractor/Contractor Representative | PMC | Client(AE/AEE/EE)

TEST REPORTS OF BITUMEN CONTENT & GRADATION DETERMINATION OF BITUMINOUS CONCRETE

Name of Client: Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Chainage/Location /Land Mark: 2nd A Cross Someshwara Nagara

Date of testing: 15.09.2021

Type of Mix: Bituminous Concrete

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Requirements
1. Weight of Mixture before Test, gm	500	As per MORTH Specification for Grade II Vide Table 500.17 Binder Content 5.4% min
2. Weight of Mixture after Test, gm	473	
3. Weight of Binder Extracted, gm	27	
4. Binder content in %	5.4	

GRADATION AFTER EXTRACTION

TOTAL WEIGHT OF SAMPLE: 473 gms

SIEVE SIZE in mm	Weight Retained in gm	% Retained	Cumulative % Retained	% Passing	Requirements as per MORTH Specification Table 500.17
19	0	0.00	0.00	100.00	100
13.2	32	6.77	6.77	93.23	90 - 100
9.5	87	18.39	25.16	74.84	70-88
4.75	95	20.08	45.24	54.76	53-71
2.36	59	12.47	57.72	42.28	42-58
1.18	34	7.19	64.90	35.10	34-48
0.6	30	6.34	71.25	28.75	26-38
0.3	31	6.55	77.80	22.20	18-28
0.15	35	7.40	85.20	14.80	12-20
0.075	30	6.34	91.54	8.46	4-10

Remarks:

The tested sample is found to be satisfactory as it meets the requirements of the MORTH Specification/Project Requirement.

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Contractor/Contractor Representative | PMC | Client(AE/AEE/EE)

TEST REPORTS OF BITUMEN CONTENT & GRADATION DETERMINATION OF BITUMINOUS CONCRETE

Name of Client: Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Chainage/Location /Land Mark: 12th B Main Road B Sector

Date of testing: 20.09.2021

Type of Mix: Bituminous Concrete

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Requirements
1. Weight of Mixture before Test, gm	500	As per MORTH Specification for Grade II Vide Table 500.17 Binder Content 5.4% min
2. Weight of Mixture after Test, gm	472	
3. Weight of Binder Extracted, gm	28	
4. Binder content in %	5.6	

GRADATION AFTER EXTRACTION

TOTAL WEIGHT OF SAMPLE: 472 gms

SIEVE SIZE in mm	Weight Retained in gm	% Retained	Cumulative % Retained	% Passing	Requirements as per MORTH Specification Table 500.17
19	0	0.00	0.00	100.00	100
13.2	33	6.99	6.99	93.01	90 - 100
9.5	98	20.76	27.75	72.25	70-88
4.75	87	18.43	46.19	53.81	53-71
2.36	48	10.17	56.36	43.64	42-58
1.18	32	6.78	63.14	36.86	34-48
0.6	38	8.05	71.19	28.81	26-38
0.3	30	6.36	77.54	22.46	18-28
0.15	34	7.20	84.75	15.25	12-20
0.075	32	6.78	91.53	8.47	4-10

Remarks:

The tested sample is found to be satisfactory as it meets the requirements of the MORTH Specification/Project Requirement.

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Contractor/Contractor Representative

PMC

Client(AE/AEE/EE)

Kamala Nivasa,
1st main, 2nd Cross, Krushinagar, Shimoga 577204, Karnataka.
9880770762, 9980160007